

**ABSTRACT**

Novel isolated polynucleotides encoding glycosyltransferases involved in the biosynthesis of the lipopolysaccharide of helicobacter pylori, together with recombinant DNA constructs and vectors containing polynucleotide sequences encoding such glycosyltransferases are disclosed. These nucleic acid constructs and vectors may be used for the preparation of glycosyltransferases they encode, by expressing the coding polynucleotide sequences in suitable host cells. Also disclosed are isolated polypeptides having enzymatic activity of helicobacterial glycosyltransferases. Such polypeptides are particularly useful for screening of modulators of their enzymatic activity, in particular enzymatic inhibitors having potential antibacterial activity.